



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND**  
**INTERFERENCES**

Application of  
 Nevenka Dimitrova, et al.

Group Art Unit: 2614

Examiner: Annan Q. Shang

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 Date: February 14, 2006

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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

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Serial No. 09/822,436

**Real party in interest**

The real party of interest is the Assignee who is U. S. Philips Corporation, a corporation existing under the laws of the State of Delaware (hereinafter Appellant).

**Related appeals and interferences**

There are no related appeals or interferences to the present application that are known to appellants, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**Status of the Claims**

Claims 1-28 were originally filed with the present application for invention. Claims 1-28 as originally filed with the present application for invention are drawn to A method for dynamically filtering the content of a multimedia program in real time on a segment- by- segment basis responsive to a filter criteria and a control system for filtering material from a multimedia program in accordance with a filter criteria. A copy of appealed claims 1-28 is contained in Appendix I following this brief.

**Status of the Amendments After Final**

A response was filed subsequent to the final rejection to overcome the Examiner's rejection of claims 1-28 under 35 U.S.C. §102(b) and 35 U.S.C. §103(a). The Examiner in an Advisory Action dated January 25, 2006 indicated that the rejections of claims 1-28 under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) stand.

**Summary of the Claimed Subject Matter**

Appealed claim 1 defines subject matter for a method for dynamically filtering the content of a multimedia program in real time on a segment- by- segment basis responsive to a filter criteria, including splitting the multimedia program into a plurality of multimedia components as shown in Figures 2 and 3, using the demultiplexers, respectively 140 and 240, as described in the specification to the present application for invention on page 13, line 18-page 14, line 3 and page 17, line 12-page

18, line 1. Appealed claim 1 further defines subject matter for extracting audio, video, and transcript features from segments within the multimedia components; using the transcript analysis 150, 250; video analysis 160, 260; video analysis 170, 270 modules illustrates in Figures 2 and 3; and described in the specification to the present application for invention on page 14, line 5-page 16, line 15 and page 17, line 12-page 18, line 1. Appealed claim 1 further defines subject matter for generating a numeric ranking for the filter criteria for each of the segments as described on in the specification to the present application for invention on page 6, lines 5-11 and when the respective numeric ranking for that segment exceeds a threshold, processing that segment to thereby eliminate material corresponding to the filter criteria as described on in the specification to the present application for invention on page 6, lines 5-11.

Appealed claim 16 defines subject matter for a parental control system filtering objectionable material from a multimedia program in accordance with a filter criteria, including a splitting mechanism that splits the multimedia program into a plurality of multimedia components; shown in Figures 2 and 3 as demultiplexers 140 and 240 described in the specification to the present application for invention on page 13, line 18-page 14, line 3 and page 17, line 12-page 18, line 1.

Appealed claim 16 further defines subject matter for a transcript analysis module extracting first audible features and text from a transcript analysis component within the multimedia components using the transcript analysis modules 150, 250 illustrated in Figures 2 and 3; a visual analysis module extracting video features from a visual analysis component within the multimedia components using video analysis modules 160, 260 illustrated in Figures 2 and 3; an audio analysis module extracting second audible features from an audio analysis component within the multimedia components audio analysis modules 170, 270 illustrated in Figures 2 and 3; and described in the specification to the present application for invention on page 14, line 5-page 16, line 15 and page 17, line 12-page 18, line 1.

Appealed claim 16 further defines subject matter for an analyzer, which generates a numeric ranking for each of the segments in response to extracted features and which generates a respective control signal when the numeric ranking exceeds a threshold as described on in the specification to the present application for invention on

page 6, lines 5-11 and a filter, which processes one of the segments of the multimedia, program in response to a received respective control signal as described on in the specification to the present application for invention on page 6, line 5-page 7, line 27.

### **Grounds of Rejection to be Reviewed on Appeal**

The Advisory Action dated January 25, 2006 indicated that the rejections to claim 1 through 28 stand. Claims 1 through 22 are the appealed claims. Appealed claims 1-11, 15-21 and 25-28 are rejected under the provisions of 35 U.S.C. §102(b) has been anticipated by U.S. Patent No. 6,115,057 issued in the name of Kwoh et al. (hereinafter referred to as *Kwoh et al.*). Appealed claims 12-14 and 22-24 are rejected under the provisions of 35 U.S.C. §103(a) has been obvious over *Kwoh et al.* in view of U.S. Patent No. 4,074,075 issued in the name of Alexander et al. (hereinafter referred to as *Alexander et al.*).

### **Argument**

#### **I. The rejection of appealed claims 1-11, 15-21 and 25-28 under the provisions of 35 U.S.C. §102(b) as being anticipated via over *Kwoh et al.***

##### **A. The rejection under 35 U.S.C. S 102(e)**

Appealed claims 12-14 and 22-24 stand rejected under the provisions of 35 U.S.C. §102(b) as being anticipated by *Kwoh et al.* (U.S. Patent No. 6,115,057). The examiner's position is that *Kwoh et al.* disclose every element defined by appealed claims 12-14 and 22-24.

"To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently." *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

##### **B. The reference**

*Kwoh et al.* allows selection of a rating level for a television receiver. *Kwoh et al.* allows a rating level such as PG-13, R or X to be selected and blocked while levels such as PG or G will be displayed (see col. 1, line 60-col. 2, line 2). *Kwoh et al.*

provides a device for extracting the rating data from a program video segment and a device for extracting text data representative of the content of that program segment (see col. 2, lines 8-14). *Kwoh et al.* teach to extract the rating of the program from the program segment and potentially extract the text data for that program segment and substituting for the extracted text data (see col. 2, lines 23-26).

*Kwoh et al.* teach enabling V-block ; which is a choice that allows blocking of scenes or programs on col. 8, lines 4-8. *Kwoh et al.* further teach parental control using V-block on col. 10, line 58 - col. 11, line 21. Specifically, on col. 11, lines 22-38, *Kwoh et al.* teach the V-block indication can be placed into the vertical blanking interval (VBI). It should be noted that *Kwoh et al.* teach that the V-block approach is not effective for controlling rating levels, such as PG-13, R and X (see col. 11, lines 44-45).

*Kwoh et al.* teach that data packets indicative of a particular rating level can be associated with program segments and inserted into the VBI (see col. 11, 49-67). *Kwoh et al.* further teach that the vertical blanking interval can be used to contain the rating data, that the rating data can be extracted from the vertical blanking interval to block specific program segments at col. 16, lines 7-29. *Kwoh et al.* further teach that a VBI decoder can be used to scan VBI lines that include data or predetermined video indicators at col. 14, lines 7-18. *Kwoh et al.* disclose at col. 16, line 66-col. 27, line 31 extracting rating data and text data from the VBI transmitted in a television signal.

*Kwoh et al.* disclose using information contained within the vertical blanking interval (VBI) to make determinations for filtering. It should be noted that *Kwoh et al.* do not disclose or suggest subject matter for splitting the multimedia program into a plurality of multimedia components and extracting audio, video, and transcript features from segments within the multimedia components. It should further be noted that *Kwoh et al.* do not disclose or suggest any generating of ranking that is used for filtering. *Kwoh et al.* teach to use the ranking that is already supplied within the VBI. *Kwoh et al.* discuss the text decoder and rating data detector being sent data from the VBI slicer at col. 17, line 32 - col. 18, line 20. Note that *Kwoh et al.* do not generate any sort of numeric ranking but instead use the rating levels that are included in the VBI.

**C. The differences between the invention and the reference****Appealed claim 1**

Appealed claim 1 defines subject matter for a method for dynamically filtering the content of a multimedia program in real time on a segment- by- segment basis responsive to a filter criteria, including: splitting the multimedia program into a plurality of multimedia components; extracting audio, video, and transcript features from segments within the multimedia components; generating a numeric ranking for the filter criteria for each of the segments; and when the respective numeric ranking for that segment exceeds a threshold, processing that segment to thereby eliminate material corresponding to the filter criteria. *Kwoh et al.* do not disclose or suggest splitting the multimedia program into a plurality of multimedia components. *Kwoh et al.* do not disclose or suggest extracting audio, video, and transcript features from segments within the multimedia components. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments.

**Appealed claim 2**

Appealed claim 2 defines subject matter for the method of appealed claim1, wherein the filter criteria corresponds to language included in the segment being processed and the audio portion of the segment is modified during the processing step. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein the filter criteria corresponds to language included in the segment being processed.

**Appealed claim 3**

Appealed claim 3 defines subject matter for the method of appealed claim 1, wherein the filter criteria corresponds to an image included in the segment being processed; and the video portion of the segment is modified during the processing step. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein the filter criteria corresponds to an image included in the segment being processed.

**Appealed claim 4**

Appealed claim 4 defines subject matter for the method of appealed claim 1, wherein the filter criteria corresponds to an image included in the segment being processed; and the entire segment is skipped during the processing step. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein the filter criteria corresponds to an image included in the segment being processed.

**Appealed claim 5**

Appealed claim 5 defines subject matter for the method of appealed claim 1, wherein the numeric ranking is a weighted numeric ranking. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein the numeric ranking is a weighted numeric ranking.

**Appealed claim 6**

Appealed claim 6 defines subject matter for the method of appealed claim 5, wherein each weighting factor employed in generating the weighted numeric ranking identifies a characteristic of a respective viewer of the multimedia program. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein each weighting factor employed in generating the weighted numeric ranking identifies a characteristic of a respective viewer of the multimedia program.

**Appealed claim 7**

Appealed claim 7 defines subject matter for the method of appealed claim 1, wherein the numeric ranking for each segment is generated by comparing the content of each segment to the filter criteria. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein the numeric ranking for each segment is generated by comparing the content of each segment to the filter criteria.

**Appealed claim 8**

Appealed claim 8 defines subject matter for the method of appealed claim 1, wherein when the numeric rankings for proximate ones of the segments each exceed the threshold, merging the proximate ones of the segments and any intervening segments to thereby produce a merged segment; and wherein the processing step comprises processing the merged segment to thereby eliminate material corresponding to the filter criteria. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein when the numeric rankings for proximate ones of the segments each exceed the threshold, merging the proximate ones of the segments and any intervening segments to thereby produce a merged segment; and wherein the processing step comprises processing the merged segment to thereby eliminate material corresponding to the filter criteria.

**Appealed claim 9**

Appealed claim 9 defines subject matter for the method of appealed claim 1, wherein the filter criteria comprises first and second filter criteria, the generating step includes generating first and second numeric rankings for respective first and second filter criteria for each of the segments, the method including: when the respective first numeric ranking for that segment exceeds a first threshold, processing that segment to thereby eliminate material corresponding to the first filter criteria; when the respective second numeric ranking for that segment exceeds a second threshold, processing that segment to thereby eliminate material corresponding to the second filter criteria. *Kwoh et al.* do not disclose or suggest generating first and second numeric rankings for respective first and second filter criteria for each of the segments. *Kwoh et al.* do not disclose or suggest the respective first numeric ranking for that segment exceeds a first threshold, processing that segment to thereby eliminate material corresponding to the first filter criteria. *Kwoh et al.* do not disclose or suggest when the respective second numeric ranking for that segment exceeds a second threshold, processing that segment to thereby eliminate material corresponding to the second filter criteria.



**Appealed claim 10**

Appealed claim 10 defines the subject matter for the method recited in claim 9, wherein the first filter criteria is associated with a first passive user and wherein the second filter criteria is associated with a second passive user. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein the first filter criteria is associated with a first passive user and wherein the second filter criteria is associated with a second passive user.

**Appealed claim 11**

Appealed claim 11 defines the subject matter for the method recited in claim 10, wherein: the first filter criteria comprises a first set of filter criteria; the second filter criteria comprises a second set of filter criteria; and the first set of filter criteria is a subset of the second set of filter criteria. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein: the first filter criteria comprises a first set of filter criteria; the second filter criteria comprises a second set of filter criteria; and the first set of filter criteria is a subset of the second set of filter criteria.

**Appealed claim 15**

Appealed claim 15 defines the subject matter for the method recited in claim 1, wherein the filter criteria is freely selectable from N pre-defined filter criteria and M user-defined filter criteria, where N and M are positive integers. *Kwoh et al.* do not disclose or suggest generating a numeric ranking for the filter criteria for each of the segments, wherein the filter criteria is freely selectable from N pre-defined filter criteria and M user-defined filter criteria, where N and M are positive integers.

**Appealed claim 16**

Appealed claim 16 defines subject matter for a parental control system filtering objectionable material from a multimedia program in accordance with a filter criteria, including a splitting mechanism that splits the multimedia program into a plurality of multimedia components; a transcript analysis module extracting first audible

features and text from a transcript analysis component within the multimedia components; a visual analysis module extracting video features from a visual analysis component within the multimedia components; an audio analysis module extracting second audible features from an audio analysis component within the multimedia components; an analyzer, which generates a numeric ranking for each of the segments in response to extracted features and which generates a respective control signal when the numeric ranking exceeds a threshold; and a filter, which processes one of the segments of the multimedia, program in response to a received respective control signal. *Kwoh et al.* do not disclose or suggest a splitting mechanism that splits the multimedia program into a plurality of multimedia components. *Kwoh et al.* do not disclose or suggest a transcript analysis module extracting first audible features and text from a transcript analysis component within the multimedia components; a visual analysis module extracting video features from a visual analysis component within the multimedia components; or an audio analysis module extracting second audible features from an audio analysis component within the multimedia components. *Kwoh et al.* do not disclose or suggest an analyzer, which generates a numeric ranking for each of the segments in response to extracted features and which generates a respective control signal when the numeric ranking exceeds a threshold; or a filter, which processes one of the segments of the multimedia, program in response to a received respective control signal.

#### **Appealed claim 17**

Appealed claim 15 defines the subject matter for the system defined in appealed claim 16, wherein the filter modifies one of the first and second audible features of the respective segment. *Kwoh et al.* do not disclose or suggest a filter that modifies one of the first and second audible features of the respective segment.

#### **Appealed claim 18**

Appealed claim 18 defines the subject matter for the system defined in appealed claim 16, wherein the filter modifies the video feature of the respective segment. *Kwoh et al.* do not disclose or suggest a filter that modifies one of the first and second audible features of the respective segment.

**Appealed claim 19**

Appealed claim 19 defines the subject matter for the system defined in appealed claim 16, wherein the filter eliminates the respective segment from the filtered multimedia program output by the parental control system. *Kwoh et al.* do not disclose or suggest a filter, wherein the filter eliminates the respective segment from the filtered multimedia program output by the parental control system.

**Appealed claim 20**

Appealed claim 20 defines the subject matter for the system defined in appealed claim 16, wherein numeric ranking is a weighted numeric ranking, the analyzer employs a weight factor in generating the weighted numeric factor; and the weighting factor corresponds to a characteristic of the intended viewer of the multimedia program. *Kwoh et al.* do not disclose or suggest a filter, numeric ranking as a weighted numeric ranking, or an analyzer employing a weight factor in generating the weighted numeric factor; or a weighting factor that corresponds to a characteristic of the intended viewer of the multimedia program.

**Appealed claim 21**

Appealed claim 21 defines the subject matter for the system defined in appealed claim 16, wherein the weighting factor is selectable from a plurality of weighting factors. *Kwoh et al.* do not disclose or suggest a filter, wherein the weighting factor is selectable from a plurality of weighting factors.

**Appealed claim 25**

Appealed claim 25 defines the subject matter for the system defined in appealed claim 16, wherein a television set incorporates the parental control system. *Kwoh et al.* do not disclose or suggest the system defined in appealed claim 16, wherein a television set incorporates the parental control system.

**Appealed claim 26**

Appealed claim 26 defines the subject matter for the system defined in appealed claim 16, wherein a settop box incorporates the parental control system. *Kwoh et al.* do not disclose or suggest the system defined in appealed claim 16, wherein a settop box incorporates the parental control system.

**Appealed claim 27**

Appealed claim 27 defines the subject matter for the system defined in appealed claim 16, wherein a personal video recorder incorporates the parental control system. *Kwoh et al.* do not disclose or suggest the system defined in appealed claim 16, wherein a personal video recorder incorporates the parental control system.

**Appealed claim 28**

Appealed claim 28 defines the subject matter for the system defined in appealed claim 16, wherein a client software device incorporates the parental control system. *Kwoh et al.* do not disclose or suggest the system defined in appealed claim 16, wherein a client software device that incorporates the parental control system.

**II. The rejection of appealed claims 12-14 and 22-24 under the provisions of 35 U.S.C. §103(a) as being obvious over *Kwoh et al.* in view of *Alexander et al.***

**A. The rejection under 35 U.S.C. S 103(a)**

Appealed claims 12-14 and 22-24 stand rejected under the provisions of 35 U.S.C. §103 (a) as being obvious over *Kwoh et al.* (U.S. Patent No. 6,115,057) in view of U.S. Patent No. 6,177,931 issued in the name of Alexander et al. (hereinafter referred to as *Alexander et al.*). The examiner's position is that it would have been obvious to one of ordinary skill within the art to apply the teaching of *Alexander et al.* for a viewer profile using the user interaction to the multimedia segments to identify content to the training segments having content corresponding to the filter criteria as taught by *Kwoh et al.* and create the subject matter defined by appealed claims.

The examiner admits that *Kwoh et al.* fail to disclose providing of training segments having content that learn to identify content matching the filter criteria. The rejection alleges that *Alexander et al.* disclose providing training segments having content that learn to identify content matching the filter criteria.

Three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). It is the contention of the appellants that the rejection fails to meet any of these requirements.

### **B. The references**

*Kwoh et al.* (U.S. Patent No. 6,115,057) has been discussed extensively under the appeal of claims 1-11, 15-21 and 25-28 under the provision of 35 U.S.C. §102(b). Briefly stated, *Kwoh et al.* provides a device for extracting the rating data from a program video segment and a device for extracting text data representative of the content of that program segment (see col. 2, lines 8-14). *Kwoh et al.* teach to extract the rating of the program from the program segment and potentially extract the text data for that program segment and substituting for the extracted text data (see col. 2, lines 23-26).

*Kwoh et al.* disclose using information contained within the vertical blanking interval (VBI) to make determinations for filtering. *Kwoh et al.* do not disclose or suggest subject matter for splitting the multimedia program into a plurality of multimedia components and extracting audio, video, and transcript features from segments within the multimedia components. *Kwoh et al.* do not disclose or suggest any generating a ranking that is used for filtering. *Kwoh et al.* teach to use the ranking that is already supplied within the VBI. *Kwoh et al.* discuss the text decoder and rating data detector being sent data from the VBI slicer at col. 17, line 32 - col. 18, line 20. Note that

*Kwoh et al.* do not generate any sort of numeric ranking but instead use the rating levels that are included in the VBI.

*Alexander et al.* (U.S. Patent No. 6,177,931) teach Electronic Programming Guides (EPG) with improved viewer interaction capabilities (see Abstract and Summary of the Invention). *Alexander et al.* teach creation of a user profile, as well as analyzing and characterizing user profiles on Col. 28, line 10 – col. 30, lines 1, *et seq.* *Alexander et al.* teach analyzing and characterizing viewer profile information and make no disclosure or suggestion related to extracting audio, video, and transcript features from segments within the multimedia components and generating a numeric ranking for the filter criteria for each of the segments.

### **C. The differences between the invention and the references**

#### **Appealed claim 12**

The rejection to appealed claim 12 asserts that the elements of appealed claim 12 are disclosed and suggested within the cited references *Kwoh et al.* in view of *Alexander et al.* The appellant respectfully asserts that the cited references *Kwoh et al.* in view of *Alexander et al.* do **not** separately or in combination disclose, or suggest, the subject matter defined by appealed claim 12.

Appealed claim 12 defines the subject matter of appealed claim 1, further including providing training segments having content corresponding to the filter criteria; and learning to identify content matching the filter criteria, wherein the learning step is performed by device.

The rejection admits that *Kwoh et al.* fail to disclose providing of training segments having content that learn to identify content matching the filter criteria. The rejection alleges that *Alexander et al.* disclose providing training segments having content that learn to identify content matching the filter criteria. *Kwoh et al.* teach to use the ranking that is already supplied within the VBI. *Alexander et al.* teach analyzing and characterizing viewer profile information and make no disclosure or suggestion related to extracting audio, video, and transcript features from segments within the multimedia components and generating a numeric ranking for the filter criteria for each of the

segments. The appellants, respectfully, point out that the combination made by the rejection does reach to subject matter for extracting audio, video, and transcript features from segments within the multimedia components and generating a numeric ranking for the filter criteria for each of the segments. *Kwoh et al.* in view of *Alexander et al.* do **not** separately or in combination disclose, or suggest, any generating of ranking that is used for filtering.

#### **Appealed claim 13**

Appealed claim 13 defines the subject matter for the method of appealed claim 12, wherein the device comprises a software device. *Kwoh et al.* in view of *Alexander et al.* do **not** separately or in combination disclose, or suggest, for the method of appealed claim 12, wherein the device comprises a software device.

#### **Appealed claim 14**

Appealed claim 14 defines the subject matter for the method of appealed claim 12, including reviewing results generated during performance of the extracting and generating steps; and providing feedback to the device corresponding to a review of the results by a controlling user. *Kwoh et al.* in view of *Alexander et al.* do **not** separately or in combination disclose, or suggest, including reviewing results generated during performance of the extracting and generating steps; and providing feedback to the device corresponding to a review of the results by a controlling user.

#### **Appealed claim 22**

Appealed claim 22 parental control system as recited in claim 16, further comprising a learning module, wherein selected ones of the first audible features and text extracted by the transcript analysis module, the video features extracted by the visual analysis module, the second audible features extracted by the audio analysis module and user data provided by a controlling user of the parental control system are employed by the learning module to generate the filter criteria. *Kwoh et al.* in view of *Alexander et al.* do **not** separately or in combination disclose, or suggest, a learning module, wherein selected ones of the first audible features and text extracted by the transcript analysis module, the video features extracted by the

visual analysis module, the second audible features extracted by the audio analysis module and user data provided by a controlling user of the parental control system are employed by the learning module to generate the filter criteria.

**Appealed claim 23**

Appealed claim 23 parental control system in claim 22, wherein the learning module comprises a neural network. *Kwoh et al.* in view of *Alexander et al.* do **not** separately or in combination disclose, or suggest, a learning module, wherein the learning module comprises a neural network.

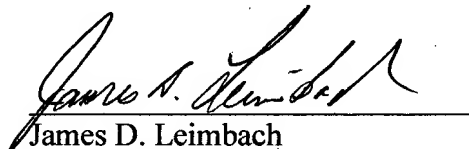
**Appealed claim 24**

Appealed claim 24 parental control system in claim 22, wherein the learning module instantiates a genetic algorithm. *Kwoh et al.* in view of *Alexander et al.* do **not** separately or in combination disclose, or suggest, a learning module, wherein the learning module instantiates a genetic algorithm.

**Conclusion**

In summary, the examiner's rejections of the claims are believed to be in error for the reasons explained above. The rejections of each of claims 1-28 should be reversed.

Respectfully submitted,



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**APPENDIX I. Claims on Appeal**

1. A method for dynamically filtering the content of a multimedia program in real time on a segment- by- segment basis responsive to a filter criteria, comprising:
  - splitting the multimedia program into a plurality of multimedia components
  - extracting audio, video, and transcript features from segments within the multimedia components;
  - generating a numeric ranking for the filter criteria for each of the segments; and
  - when the respective numeric ranking for that segment exceeds a threshold, processing that segment to thereby eliminate material corresponding to the filter criteria.
2. The method as recited in claim1, wherein:
  - the filter criteria corresponds to language included in the segment being processed; and
  - the audio portion of the segment is modified during the processing step.
3. The method as recited in claim 1, wherein:
  - the filter criteria corresponds to an image included in the segment being processed; and
  - the video portion of the segment is modified during the processing step.
4. The method as recited in claim 1, wherein:
  - the filter criteria corresponds to an image included in the segment being processed; and
  - the entire segment is skipped during the processing step.
5. The method as recited in claim 1, wherein the numeric ranking is a weighted numeric ranking.
6. The method as recited in claim 5, wherein each weighting factor employed in generating the weighted numeric ranking identifies a characteristic of a respective viewer of the multimedia program.

7. The method as recited in claim 1, wherein the numeric ranking for each segment is generated by comparing the content of each segment to the filter criteria.
8. The method as recited in claim 1, further comprising:
  - when the numeric rankings for proximate ones of the segments each exceed the threshold, merging the proximate ones of the segments and any intervening segments to thereby produce a merged segment; and
  - wherein the processing step comprises processing the merged segment to thereby eliminate material corresponding to the filter criteria.
9. The method as recited in claim 1, wherein:
  - the filter criteria comprises first and second filter criteria;
  - the generating step comprises generating first and second numeric rankings for respective first and second filter criteria for each of the segments;
  - the method comprising the further steps of:
    - when the respective first numeric ranking for that segment exceeds a first threshold, processing that segment to thereby eliminate material corresponding to the first filter criteria;
    - when the respective second numeric ranking for that segment exceeds a second threshold, processing that segment to thereby eliminate material corresponding to the second filter criteria .
10. The method recited in claim 9, wherein the first filter criteria is associated with a first passive user and wherein the second filter criteria is associated with a second passive user.
11. The method as recited in claim 10, wherein:
  - the first filter criteria comprises a first set of filter criteria;
  - the second filter criteria comprises a second set of filter criteria; and
  - the first set of filter criteria is a subset of the second set of filter criteria.
12. The method as recited in claim 1, further comprising:
  - providing training segments having content corresponding to the filter criteria; and
  - learning to identify content matching the filter criteria,

wherein the learning step is performed by device.

13. The method as recited in claim 12, wherein the device comprises a software device.
14. The method as recited in claim 12, further comprising the steps of:
  - reviewing results generated during performance of the extracting and generating steps;
  - and
  - providing feedback to the device corresponding to a review of the results by a controlling user.
15. The method as recited in claim 1, wherein the filter criteria is freely selectable from N pre-defined filter criteria and M user-defined filter criteria, where N and M are positive integers.
16. A parental control system filtering objectionable material from a multimedia program in accordance with a filter criteria, comprising:
  - a splitting mechanism that splits the multimedia program into a plurality of multimedia components;
  - a transcript analysis module extracting first audible features and text from a transcript analysis component within the multimedia components;
  - a visual analysis module extracting video features from a visual analysis component within the multimedia components;
  - an audio analysis module extracting second audible features from an audio analysis component within the multimedia components;
  - an analyzer, which generates a numeric ranking for each of the segments in response to extracted features and which generates a respective control signal when the numeric ranking exceeds a threshold; and
  - a filter, which processes one of the segments of the multimedia, program in response to a received respective control signal.
17. The parental control system as recited in claim 16, wherein the filter modifies one of the first and second audible features of the respective segment.

18. The parental control system as recited in claim 16, wherein the filter modifies the video feature of the respective segment.
19. The parental control system as recited in claim 16, wherein the filter eliminates the respective segment from the filtered multimedia program output by the parental control system.
20. The parental control system as recited in claim 16, wherein:
  - numeric ranking is a weighted numeric ranking;
  - the analyzer employs a weight factor in generating the weighted numeric factor; and
  - the weighting factor corresponds to a characteristic of the intended viewer of the multimedia program.
21. The parental control system as recited in claim 20, wherein the weighting factor is selectable from a plurality of weighting factors.
22. The parental control system as recited in claim 16, further comprising a learning module, wherein selected ones of the first audible features and text extracted by the transcript analysis module, the video features extracted by the visual analysis module, the second audible features extracted by the audio analysis module and user data provided by a controlling user of the parental control system are employed by the learning module to generate the filter criteria.
- 23.: The parental control system as recited in claim 22, wherein the learning module comprises a neural network.
24. The parental control system as recited in claim 22, wherein the learning module instantiates a genetic algorithm.
25. A television set incorporating the parental control system as recited in claim 16.

26. A settop box incorporating the parental control system as recited in claim 16.
27. A personal video recorder incorporating the parental control system as recited in claim 16.
28. A client software device incorporating the parental control system as recited in claim 16.

**APPENDIX II. Evidence Appendix**

There is no evidence known to the appellant that needs to be supplied with this brief

**APPENDIX III. Related Proceedings Appendix**

There are no proceedings known to the appellant that relates to the proceedings of this appeal.